

## II. Claim Rejections Under 35 U.S.C. §103

Claims 1, 2, and 4-18 are rejected under 35 U.S.C. §103(a) as unpatentable over U.S. Patent 5,144,452 to Abuyama in view of U.S. Patent 5,621,810 to Suzuki et al. (Suzuki). The rejection is respectfully traversed.

Neither Abuyama or Suzuki, whether considered alone or in combination, disclose or suggest each and every feature recited in the rejected claims. For example, the combination of references fails to disclose or suggest an image forming system, comprising an image multiplier for automatically scanning an original image portion of a document and automatically determining a number of times the image portion may be formed on a substrate; as recited in apparatus claim 14. Furthermore, the combination of references fails to disclose the corresponding method claims recited in claims 1 and 5.

It is admitted in the Office Action that Abuyama fails to disclose or suggest the image multiplier as recited in rejected claim 14. In an effort to overcome the admitted deficiency, Suzuki is combined with Abuyama for allegedly teaching such an image multiplier. Suzuki relates to an apparatus for image reading or processing that can precisely identify a particular pattern, such as of banknotes or securities, and prohibit faithful copying of such banknotes and securities (Abstract of Suzuki). As shown in Fig. 4 of Suzuki, the CPU 417 controls the apparatus in various modes. A window comparator 408 discriminates the input of a signal of a predetermined level designated by the CPU 417 to detect background levels or other identifying marks on a banknote or security (col. 5, lines 33-37).

A watermark detection circuit 410 also serves to detect a watermarked portion of the banknote (col. 5, lines 55 and 56). The structure of the device in Suzuki allows for a precise discrimination of a particular image such as of a banknote placed in an arbitrary position to securely prohibit the reproduction of a predetermined image when it is entered (see col. 2, lines 1-32).

The Office Action refers to the CPU 417 of Suzuki as corresponding to the image multiplier and alleges the device is shown in Figs. 11 and 14A and described at col. 8, lines 31-65. However, Fig. 11 is described as showing the principle of positional detection and Fig. 14A is described as showing a view of principle of pattern matching (see col. 3, lines 6-10). Therefore, neither Figs. 11 or 14A disclose or suggest an image multiplier as recited in the rejected claims, or the CPU 417 alleged to correspond to the image multiplier.

The Office Action refers to col. 8, lines 31-65 for teaching the image multiplier. However, as discussed during the interview, the cited section of Suzuki fails to disclose or suggest an image multiplier for automatically scanning an original image portion of a document and automatically determining a number of times image portion may be formed on a substrate. Rather, as described in col. 8, lines 31-65, the CPU 417 detects the exact position and angle of a banknote from a scanned bitmap. The four corners of the banknote, as shown in Fig. 11 are detected regardless of the angle of the banknote on the platen when originally scanned. Thus, neither the figures nor the cited section of Suzuki discloses or suggests the features as alleged in the Office Action.

In operation, when a pre-registered pattern, such as a red stamp mark on a banknote, is detected, indicating the possibility of forgery, a step is executed for preventing such forgery. Specifically, a signal  $FF_H$  is sent to the printer unit, thus depositing black toner over the entire surface and disabling proper copying of the document (see col. 9, lines 11-30). Thus, rather than teaching an image multiplier for automatically scanning an original image portion and automatically determining a number of times the image portion may be formed on a substrate, the CPU 417 and the accompanying components seek to prevent copying.

In making an assessment of differences between the prior art and the claimed subject matter, §103 specifically requires consideration of the claimed invention "as a whole." The "as a whole" instruction prevents evaluation of the invention on part-by-part basis. Without

this important requirement, an obviousness assessment might successfully break an invention into its component parts, then find a prior art reference corresponding to each component. This line of reasoning would import hindsight into the obviousness determination by using the invention as a roadmap to find its prior art components. *In re Ruiz v. A.B. Chance Co.*, 357 F.2d 1270, 1275 (Fed. Cir. 2004). This "as a whole" assessment of the invention requires a showing that an artisan of ordinary skill in the art at the time of the invention, confronted by the same problems as the inventor and with no knowledge of the claimed invention, would have selected the various elements from the prior art and combine them in the claimed manner. In other words, §103 requires some suggestion or motivation, before the invention itself to make the new combination, see *In re Rouffet*, 149 F.3d 1350, 1355-56 (Fed. Cir. 1998). If a reference's disclosure relates to the same problem as a claimed invention, that fact supports use of the reference in obviousness rejection. *In re Clay*, 956 F.2d 656, 659 (Fed. Cir. 1992). Applicants submit there is no such suggestion or motivation.

Abuyama relates to an image forming apparatus able to acknowledge to an operator the available number of duplicated images which the apparatus can produce on a given sheet, thereby overcoming the problem being addressed in Abuyama. As discussed above, Suzuki relates to preventing copying of certain images such as those of banknotes and securities. Thus, while Suzuki seeks to prevent copying, Abuyama seeks to acknowledge to a user the number of images that may be formed on a particular sheet. Therefore, there is no suggestion or motivation in either of the references to make the combination as alleged in the Office Action as they relate to disparate problems, neither of which relates to the problem being addressed in this application. Thus, there is no motivation or suggestion in either of the references to make the combination as alleged in the Office Action.

Furthermore, as discussed during the interview, Suzuki actually teaches away from determining a number of times an image may be formed on a substrate because it, teaches

how to prevent an image from being copied at all. Thus, there is no suggestion or motivation to combine a method of preventing copying with a method of creating duplicate copies as suggested in the Office Action.

Moreover, to make such a combination would render the device being modified unsatisfactory for its intended purpose. For example, Abuyama relates to acknowledging to an operator the available number of duplicated images which an apparatus can produce on a given sheet. By combining the teachings of Suzuki, i.e., preventing duplication, the modified device of Abuyama would be rendered unsatisfactory for its intended purpose. Therefore, there is no suggestion or motivation to make the combination as proposed in the Office Action.

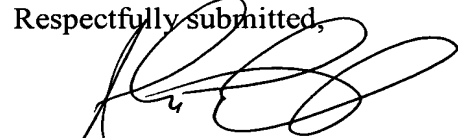
As stated at MPEP §2141.02, the prior art must be considered as a whole, including portions that teach away from the claimed invention. Thus, merely choosing to select a CPU for its alleged teaching of automatically determining a location of an original portion is improper without consideration of the document as a whole. Also, the fact that a reference can be modified is not sufficient to establish a *prima facie* case of obviousness unless the prior art suggest the desirability of the combination (MPEP §2143.01). As discussed above, there is no such suggestion or motivation to combine the references as proposed. Therefore, the combination of references fails to disclose either the apparatus as recited in independent claim 14 or the related method claims in independent claims 1 and 5. Accordingly, withdrawal of the rejection of claims 1, 2 and 4-18 under 35 U.S.C. §103(a) is respectfully requested.

### **III. Conclusion**

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1, 2 and 4-18 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Date: October 31, 2005

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